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*Admitted only in Maryland
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•Practice Limited to Federal Agencies

September 15, 2003

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SEP 16 2003

Art Unit 1648

TECH CENTER 1600/2900

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Re: U.S. Utility Patent Application
Appl. No. 10/050,902; Filed: January 18, 2002
For: **Molecular Antigen Array**
Inventors: Renner *et al.*
Our Ref: 1700.0190004/BJD/SJE

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Fifth Supplemental Information Disclosure Statement;
2. Form PTO-1449 (15 sheets citing 55 documents);
3. 55 documents cited in Form PTO-1449 attached; and
4. One (1) return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents
September 15, 2003
Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Brian J. Del Buono
Attorney for Applicants
Registration No. 42,473

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Enclosures

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

RENNER *et al.*

Appl. No. 10/050,902

Filed: January 18, 2002

For: **Molecular Antigen Array**

Confirmation No. 7792

Art Unit: 1648

Examiner: Mosher, M.

Atty. Docket: 1700.0190004/BJD/SJE

Fifth Supplemental Information Disclosure Statement

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. This Fifth Supplemental Information Disclosure Statement is supplemental to Applicants' Fourth Supplemental Information Disclosure Statement (IDS) filed electronically on August 19, 2003. A copy of each document is also provided.

In accordance with 37 C.F.R. § 1.98(a)(3), Applicants' undersigned representative submits the following concise explanation of the relevance of the non-English language document, Document **AP3** cited on Form PTO-1449:

Document **AP3**, WO 94/06472 A1, is in the French language. The relevance of Document **AP3** can be ascertained by reference to the English language abstract appearing therein, and an unverified English language abstract attached as Document **AT94**.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered. This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist.

This Fifth Supplemental Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.

Consideration of the cited documents and making the same of record in the prosecution of the above-identified application is respectfully requested. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Brian J. Del Buono
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Date: September 15, 2003

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| FORM PTO-1449 FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT | | ATTY. DOCKET NO. 1700.0190004/BJD/SJE | APPLICATION NO. 10/050,902 |
| | | APPLICANT RENNER et al. | |
| | | FILING DATE January 18, 2002 | GROUP 1648 |

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| AL | | | | | | Yes No |
| AM | | | | | | Yes No |
| AN3 | EP 0 259 149 B1 | 12/15/1993 | Europe | | | Yes No |
| AO3 | EP 0 385 610 B1 | 03/16/1994 | Europe | | | Yes No |
| AP3 | WO 94/06472 A1 | 03/31/1994 | WIPO | | | X Yes No |

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| AL4 | | EP 0 465 081 B1 | 04/20/1994 | Europe | | | Yes No |
| AM4 | | EP 0 283 505 B1 | 07/06/1994 | Europe | | | Yes No |
| AN4 | | WO 94/15585 A1 | 07/21/1994 | WIPO | | | Yes No |
| AO4 | | EP 0 425 082 A1 | 04/26/1995 | Europe | | | Yes No |
| AP4 | | WO 96/05293 A1 | 02/22/1996 | WIPO | | | Yes No |

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| AR | <u>82</u> | Borisova, G., et al., "Hybrid Hepatitis B Virus Nucleocapsid Bearing an Immunodominant Region from Hepatitis B Virus Surface Antigen," <i>J. Virol.</i> 67:3696-3701, American Society for Microbiology (1993) |
| AS | <u>82</u> | Cesareni, G., "Peptide display on filamentous phage capsids: A new powerful tool to study protein-ligand interaction," <i>FEBS Lett.</i> 307:66-70, Elsevier Science Publishers B.V. (1992) |
| AT | <u>82</u> | Connor, R.I., et al., "Immunological and Virological Analyses of Persons Infected by Human Immunodeficiency Virus Type 1 while Participating in Trials of Recombinant gp120 Subunit Vaccines," <i>J. Virol.</i> 72:1552-1576, American Society for Microbiology (1998) |

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| | AL5 | WO 99/07839 A2 | 02/18/1999 | WIPO | | | Yes No |
| | AM5 | WO 99/40934 A1 | 08/19/1999 | WIPO | | | Yes No |
| | AN5 | WO 99/67293 A1 | 12/29/1999 | WIPO | | | Yes No |
| | AO | | | | | | Yes No |
| | AP | | | | | | Yes No |

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ATTY. DOCKET NO.
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APPLICATION NO.
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APPLICANT
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| AR | 84 | Donnelly, J.J., et al., "DNA Vaccines," <i>Annu. Rev. Immunol.</i> 15:617-648, Annual Reviews, Inc. (1997) |
| AS | 84 | Ebina, S., et al., "Chemical Modification of Bovine Pancreatic Trypsin Inhibitor for Single Site Coupling of Immunogenic Peptides for NMR Conformational Analysis," <i>J. Biol. Chem.</i> 264:7882-7888, The American Society for Biochemistry and Molecular Biology, Inc. (1989) |
| AT | 84 | Esposito, G., et al., "Conformational study of a short Pertussis toxin T cell epitope incorporated in a multiple antigen peptide template by CD and two-dimensional NMR: Analysis of the structural effects on the activity of synthetic immunogens," <i>Eur. J. Biochem.</i> 217:171-187, Blackwell Science Ltd. on behalf of the Federation of European Biochemical Societies (1993) |

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OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

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| AT | <u>86</u> | Harding, C.V., and Song, R., "Phagocytic Processing of Exogenous Particulate Antigens by Macrophages for Presentation by Class I MHC Molecules," J. Immunol. 153:4925-4933, The American Association of Immunologists (1994) |

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| | AS | 87 | Hui, E. K-W. et al., "Hepatitis B viral core proteins with an N-terminal extension can assemble into core-like particles but cannot be enveloped," J. Gen. Virol. 80:2647-2659, Society for General Microbiology (1999) |
| | AT | 87 | Iannolo, G., et al., "Construction, Exploitation and Evolution of a New Peptide Library Displayed at High Density by Fusion to the Major Coat Protein of Filamentous Phage," Biol. Chem. 378:517-521, Walter de Gruyter & Co. (1997) |

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